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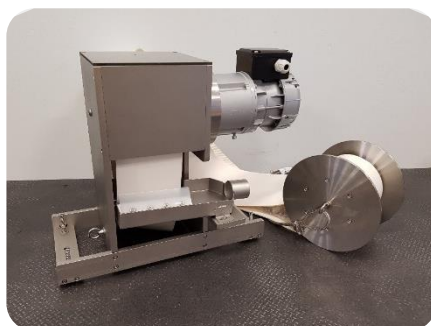
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USER HANDBOOK
BELT OIL SEPARATOR DB 120 Free pulley



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I. Introduction

1. Using the machine

The belt oil separator is used to recover the hydrocarbon agglomerates on the surface of liquids.

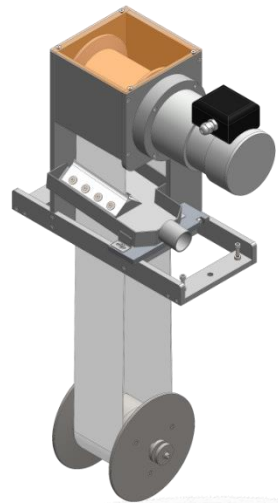
2. Operating modes

Two operating modes are available:

- Manual mode: The operator starts the oil separator by plugging the supply cable into an electrical power point.
- Automatic mode: A programmer, provided by the client, enables the operator to control on/off phases, as well as the oil separator operating time.

II. Installation of a "Free pulley" belt oil separator

- Place the oil separator on its two supports.
- Start the oil separator and ensure the belt passes correctly over the top pulley by adjusting the setting screws on the supports.
- The free pulley is linked to the oil separator by a belt and cables. The cables are only present as a security measure in case of a belt breakage. In order for the machine to function correctly, they must not be tensioned, contrary to the belt itself. It is therefore recommendable to adjust the cable lengths using the cable clamps present on the oil separator.



III. Change of belt

- Raise the free pulley (bottom pulley)
- Remove the top plastic casing element (4 screws FHC M4).
- Turn the top pulley until the seat of the needle screw appears (enabling tightening of the motor shaft with 2 screws HC M5 located one above the other). Remove the first, then unscrew the second.
- Remove the motor with its counter-plate by loosening the 4 screws FHC M5.
- Extract the internal wiper (2 screws CHC M5) and the chute (2 screws CHC M4).

- f. Unscrew the M8 pulley fastening screw (opposite the motor) and one of the "stirrup" cable clamps protecting the free pulley with a sleeved cable.
- g. The belt is now accessible for replacement.
- h. Repeat these operations in the reverse order.
- i. Start the oil separator to ensure the belt is correctly centred on the top pulley.
In case of a problem, re-adjust using the 4 setting screws.

IV. Periodic maintenance

To ensure maximum efficiency, carry out the following checks:

- Ensure the oil separator belt is always centred on the top pulley (adjust the oil separator level if necessary)
 - Check the state of the wipers (replace when damaged).
 - Check the state of the belt:
 - Surface coating: presence of chips, abrasive materials or others.
 - Flexibility: Depending on the working environment, the belt may become hard (reducing operating efficiency) and even warped (premature wear of the wipers).
- For optimum use and results, **we recommend belt replacement every 1 to 2 years.**
- Check the safety cables + bottom pulley.

V. Consumables and spare parts

- **DKIT-01-03:** Pair of flexible wipers for DB120 PF
- **DKIT-01-01:** Pair of Teflon wipers for DB120 PF (old generation)
- **MOT-BA01:** Standard, single-phase motor 230 V for DB120 PF
- **MOT-DA02:** Standard, three-phase motor 230-400 V for DB120 PF
- **BDE115-AAA-XXXXX:** Standard belt, width 115mm / Replace the XXXXX by the developed length in mm.

VI. Technical characteristics

Standard:

- ✓ Frame + aluminium top pulley / Chute + Stainless steel 304L bottom pulley.
- ✓ Belt 115mm. Customised length (min: 1400mm)
- ✓ Motor IP 55 – 10.5 rpm – single or three-phase 230 V & 400 V – 40 W
- ✓ Flexible wipers
- ✓ Screws in A2 and A4

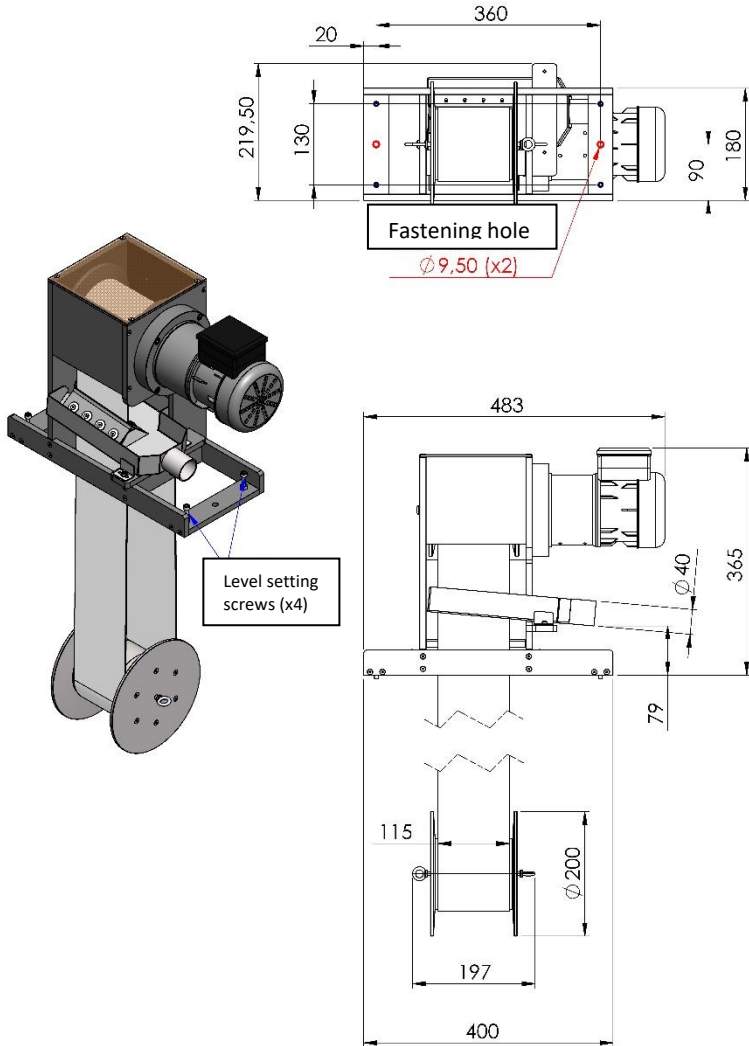
Optional:

- ✓ Motor IP67 - 10 rpm – single or three-phase 230 V – 40 W
- ✓ ATEX motor

- ✓ 24 VDC motor
- ✓ Stainless steel 304 or 316L (marine environment)
- ✓ Screws in A4

The weight of the standard model is approximately 17 Kg.

VII. Dimensions



VIII. CE Directive

1. *Introduction*

The presence of a CE marking implies that all "new approach" directives apply to this machine.

Analysis of the oil separators indicate that they are foreseen with a mobile element driven by an electric motor (belt or disk). Once mounted on a tank, it has a pre-defined application. It complies with the definition given in article 1§2 of the "Machines" directive.

As the belts and disks are driven by a very slow rotational movement and there is no play between the disks (or belts) and the scraper system, the main risks are essentially of electrical origin.

In this case, the manufacturer may envisage the possibility of invoking article 1§5 whereby the machine is subject only to the "Low voltage" directive.

2. *Evaluation of conformity*

✓ *Safety and reliability of the control systems*

The oil separator is supplied without control elements and a length of cable foreseen with a plug at one end may be used to connect to the electrical power supply. The use of a socket to control starting and stopping of the machine is not considered suitable for these functions. However, the machine represents only a limited hazard in case of the power supply being automatically restored after a power cut.

✓ *Starting the machine*

These machines are not equipped with a starting device.

Plugging into the electrical power point starts the machine (the machine is foreseen with a 2-pole + earth, 16A plug) for the 230 volts model.

✓ *Stopping the machine*

These machines are not equipped with a stopping device.

The machine is stopped by unplugging it.

The absence of a stopping device implies systematic unplugging of the machine from the electrical power supply. Use of a device such as a "programmer" enable the possible incorporation of an On/Off function.

A standard, off-the-shelf programming device may, in our opinion, provide a suitable interface with the operator site. This device is not supplied with the machine. However, the operating instructions specify the technical characteristics and operating conditions required for such a device.

✓ *Power supply failure (electrical supply interrupted/restored)*

As the machine is connected directly to the power supply, it stops in case of an electrical power failure and restarts immediately when the power supply is restored (unless a reset facility is installed upstream of the power point).

✓ *Stability*

Under operating conditions, the machine rests on its platform and is sufficiently stable.

✓ *Risks due to falling parts*

The primary risk of falling identified is during machine handling operations in the installation phases.

✓ *Prevention of risks in relation to moving parts*

In the case of the belt oil separator, the transmission elements comprise a transport belt passing over two pulleys, one drive (motorised) and one idle (free-turning).

The "drive" pulley, located at the top, is protected with a casing element and does not represent a source of danger.

The "free-turning" pulley, located at the bottom, is visible for half its diameter.

When the machine is in operation, the pulley is submerged and therefore does not represent a source of danger.

✓ *Specific requirements for protection elements*

Fixed protection elements: the transport belt drive pulley is incorporated into the top casing of the machine. This casing is designed to provide sufficient protection by rendering access impossible.

✓ *Risks in relation to the electrical power supply*

The electrical equipment installed in the machine represents no apparent danger. We do however wish to draw your attention to the fact that the electrical power supply to the machine must be disconnected before beginning any work on the drive motor. The electrical hazard symbol is placed on the motor cover (self-adhesive pictogram).

✓ *Noise-related hazard*

Our oil separators are very quiet and have a noise level of less than 70 Db.

✓ *Risks due to the emission of dust, gas, etc. ...*

In the case where the machine is used for the separation of aggressive products, the wearing of appropriate gloves is recommended as well as goggles if considered necessary.

✓ *Machine servicing*

The machine is stopped and electrically isolated during servicing operations.

✓ *Isolation of power supplies*

Isolation is carried out by unplugging (2-pole + earth) the plug from the mains electrical power supply, in the case of a 230 volts supply.

✓ *Operator intervention*

The task of the operator consists of manually placing the oil separator on the container to be processed and then starting the machine by plugging it into the electrical power point.

3. Conclusion

The equipment is compliant with directive 2006/42/CE – 2nd edition 06/2010.